PATENT APPLICATION
CH-7992
WW-5620

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION OF HARTWIG SCHLESIGER ET AL SERIAL NUMBER: 10/768,765 FILED: JANUARY 30, 2004 TITLE: CELLULOSE ETHER BLENDS OF INCREASED BULK DENSITY, THEIR USE IN CONSTRUCTION MATERIAL SYSTEMS, AND A PROCESS FOR PRODUCING CELLULOSE ETHER BLENDS OF INCREASED BULK DENSITY	GROUP NO.: 1711 EXAMINER: Nathan M. Nutter

LETTER

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Enclosed is an Appeal Brief in the matter of the subject Appeal. Please charge the fee for filing the Brief, $500.00, to our Deposit Account Number 13-3848. Triplicate copies of this paper are enclosed.

Respectfully submitted,

By _____
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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an enveloped addressed to: Commissioner for Patents, Alexandria, VA 22313-145 10/31/05
Date
James R. Franks - Reg. No. 42,552
Name of applicant, assignee or Registered Representative
_____
Signature
October 31, 2005
Date

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APPEAL BRIEF

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This Brief is an appeal from the Final Office Action of the Examiner dated June 8, 2005 in which the rejections of Claims 1-5 were maintained.

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Date
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I. REAL PARTY IN INTEREST

The real party in interest is Bayer MaterialScience AG.

II. RELATED APPEALS AND INTERFERENCES

There are no other related appeals or interferences known to Appellants, Appellants' legal representative, or Appellants' assignee, which will directly affect or be directly affected by or have a bearing on the Board's decision in this pending appeal.

III. STATUS OF THE CLAIMS

Claims Pending:	1-5
Claims Canceled:	None
Claims Allowed:	None
Claims Withdrawn from Consideration:	None
Claims Appealed:	1-5

IV. STATUS OF AMENDMENTS

No amendment has been filed subsequent to the outstanding final rejection.

V. SUMMARY OF THE INVENTION

The present invention is directed to a cellulose ether blend comprising:

a) cellulose ether,

b) from 0.1 to 10% by weight of an additive selected from the group consisting of starch, starch ether, guar, guar ether and xanthan, based on the cellulose ether in a dry form,

c) optionally from 0.05 to 1% by weight of polyacrylamide, based on the dry cellulose ether, and

d) optionally further additives,

wherein said cellulose ether blend is prepared by a process comprising,

metering-in additive b) as an aqueous solution or as a powder,

metering-in polyacrylamide c) as an aqueous solution to form a water-moist cellulose ether having a moisture content in the range from 25% to 75% by weight, based on the weight of the moist cellulose ether,

mixing (a) - (d),

optionally further adding water, and

milling and drying the cellulose ether blend,

further wherein said cellulose ether blend has a bulk density that is more than 40 g/l greater than the bulk density of a comparative cellulose ether blend prepared by mixing in the absence of milling.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

(I) Claims 1-5 stand rejected under 35 U.S.C. § 103(a) as being obvious over United States Patent No. 4,654,085 (**Schinski**).

VII. ARGUMENTS

(I) CLAIMS 1-5 ARE NOT RENDERED OBVIOUS UNDER 35 U.S.C. § 103(a) OVER SCHINSKI.

The Examiner has taken the position that under 35 U.S.C. §103(a), Claims 1-5 are unpatentable over Schinski. Appellants respectfully disagree with regard to Claims 1-5.

Schinski discloses an additive for cementitious compositions that includes: cellulose ether (e.g., methyl cellulose and mixed alkyl and hydroxyalkyl derivatives); starch ether (e.g., hydroxyl alkyl starches); and a polyacrylamide (e.g., anion polyacrylamides of acrylamide and acrylic acid salts). See the: abstract; column 2, lines 34-48; column 3, lines 37-40; and column 4, lines 1-4 of Schinski.

Schinski discloses combining the three essential components (cellulose ether, starch ether and polyacrylamide) of his additive composition by mixing only. See

column 4, lines 37-39 of Schinski. Schinski does not disclose, teach or suggest preparing his additive composition by a combination of mixing and milling.

The cellulose ether blends of Appellants' present claims are prepared by means of a combination of mixing and milling. The combination of mixing and milling provides the cellulose ether blends of Appellants' claims with increased bulk density. In particular, the cellulose ether blends of Appellants' present claims have a bulk density of more than 40 g/l greater than the bulk density of a comparative cellulose ether blend prepared by mixing in the absence of milling.

Attention is directed to Examples, 3 and 4, and comparative Example 16 on pages 12, 16 and 17 of the specification. In these examples, comparable methylhydroxyethyl cellulose and starch ether components were used. The cellulose ether blends of Examples 3 and 4 are in accordance with the present invention and were prepared by a combination of mixing and milling. Comparative Example 16 was prepared by mixing only, in the absence of milling. Examples 3 and 4 and Comparative Example 16 include 2 percent by weight of starch ether additive, however, the blend of Comparative Example 16 has a bulk density of only 208 g/l, while the blends of Examples 3 and 4 have bulk densities of 256 g/l and 262 g/l (an average of 259 g/l, corresponding to an average increase in bulk density of 51 g/l).

In the Office Action of 8 June 2005 it is argued that Appellants have failed to show that the additive composition of Schinski does not satisfy the bulk density of Appellants' presently claimed cellulose ether blend. Appellants respectfully submit that Comparative Example 16, as discussed previously herein, does represent an additive composition according to Schinski (without polyacrylamide), and the properties thereof may be reasonably compared with the properties of representative cellulose ether blends according to Appellants' present claims (i.e., Examples 3 and 4). As such, Appellants respectfully submit that they have met their burden of production relative to showing that compositions according to Schinski do not satisfy the bulk density requirements of Appellants' presently claimed cellulose ether compositions.

On page 3 of the Office Action of 8 June 2005, it is argued that milling of a cellulose ether composition would necessarily result in the formation of a product

that is more compact, due to minimizing the presence of air entrapped in pores of the non-milled material. Appellants respectfully disagree, and submit that an increase in bulk density would not necessarily result from milling, and such an increase would not be deemed obvious to a skilled artisan. As particle size decreases, particle surface area increases, and accordingly at least as much air may reside between the smaller particles, as would be recognized by a skilled artisan. In addition, and perhaps more importantly, as particle size is decreased and surface area is increased, there is also a corresponding increase in the repulsive forces between the surfaces of the individual particles that may result in a milled product having the same or reduced bulk density relative to the non-milled starting material, as would be recognized by a skilled artisan.

With regard to the comments on page 3 of the Office Action of 8 June 2005, Appellants respectfully further submit that "[e]xaminer's assumptions do not constitute the disclosure of prior art." *In re Rijckaert*, 9 F.3d 1531, 1533, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993).

Schinski provides no disclosure or suggestion with regard to cellulose ether blends that are prepared by a combination of mixing and milling. In light of the preceding discussion, Schinski does not disclose, teach or suggest cellulose ether blends having the improved bulk density properties of the cellulose ether blends of Appellants' claims.

"Even when obviousness is based on a single prior art reference, there must be a showing of a suggestion or motivation to modify the teachings of that reference." *In re Kotzab*, 217 F.3d 1365, 1370, 55 U.S.P.Q.2d 1313 (Fed. Cir. 2000). Modifying "prior art references without evidence of such a suggestion, teaching or motivation simply takes the inventor's disclosure as a blueprint for piecing together the prior art to defeat patentability -- the essence of hindsight." *In re Dembiczak*, 175 F.3d 994, 999, 50 U.S.P.Q.2d 1614 (Fed. Cir. 1999) (citations omitted).

In light of the preceding remarks, Appellants' Claims 1-5 are deemed to be unobvious and patentable over Schinski.

In view of the remarks herein, Appellants' respectfully submit that their claimed cellulose ether blend is not described, taught or fairly suggested by Schinski. Thus, Appellants respectfully request that the Board of Appeals reverse the decision of the Examiner, and remand the application for allowance of Claims 1-5 and issuance of a patent.

Respectfully submitted,

By _____

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VIII. CLAIMS APPENDIX

CLAIMS ON APPEAL

1. (Previously Presented) A cellulose ether blend comprising:

a) cellulose ether,

b) from 0.1 to 10% by weight of an additive selected from the group consisting of starch, starch ether, guar, guar ether and xanthan, based on the cellulose ether in a dry form,

c) optionally from 0.05 to 1% by weight of polyacrylamide, based on the dry cellulose ether, and

d) optionally further additives,

wherein said cellulose ether blend is prepared by a process comprising,

metering-in additive b) as an aqueous solution or as a powder,

metering-in polyacrylamide c) as an aqueous solution to form a water-moist cellulose ether having a moisture content in the range from 25% to 75% by weight, based on the weight of the moist cellulose ether,

mixing (a) - (d),

optionally further adding water, and

milling and drying the cellulose ether blend,

further wherein said cellulose ether blend has a bulk density that is more than 40 g/l greater than the bulk density of a comparative cellulose ether blend prepared by mixing in the absence of milling.

2. (Previously Presented) The cellulose ether blend of Claim 1, wherein the cellulose ether is methyl cellulose or methylhydroxyalkyl cellulose.

3. (Previously Presented) The cellulose ether blend of Claim 1, wherein the additive b) has been metered in as a powder.

4. (Previously Presented) The cellulose ether blend of Claim 1, wherein the polyacrylamide c) is an anionic polyacrylamide having a sodium acrylate content of less than 20% by weight and a viscosity of less than 1000 mPas (as determined under conditions of 1% strength by weight in 10% strength by weight sodium chloride solution, at a temperature of 25°C).

5. (Previously Presented) The cellulose ether blend of Claim 1, wherein a starch ether selected from the group consisting of hydroxyalkyl starch, alkylhydroxyalkyl starch and carboxymethylhydroxyalkyl starch is used as additive b).

IX. EVIDENCE APPENDIX

No evidence has been submitted by Appellants during the prosecution of the present case.

X. RELATED PROCEEDINGS APPENDIX

There are no other related appeals or interferences known to Appellants, Appellants' legal representative, or Appellants' assignee, which will directly affect or be directly affected by or have a bearing on the Board's decision in this pending appeal.